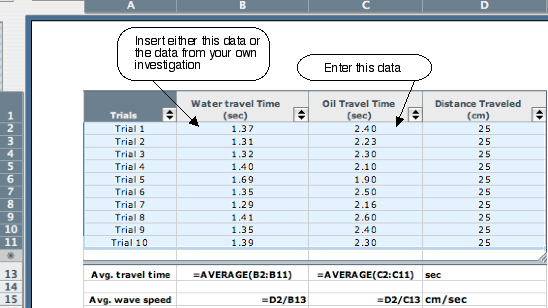
**Charting Wave Speed**

Students did a lab activity where they dropped a pebble (10 times) into a tray of water and timed how long it took for the wave (ripple) to get to the other side of the tray (25 cm away). In the second part, the trials were repeated the same way but in oil instead of water. This shows how seismic waves from an earthquake move at different speeds through different materials, thus helping scientists to be able to figure out what the center of the earth is like by studying how these waves behave.

**Your task** is to create a spreadsheet either using the provided data. Then create a bar chart similar to the example below, showing the same data in a different way. Save as the spreadsheet as **Wave Speed.**



**Formatting:**

1. Make sure to adjust the column widths so everything fits. Highlight Row 1, align as **centered** and check the box “**wrap text**” at the top of the Excel window. This will allow the column headings to fit.
2. Format the cells in column B and C as “**number**” with **center** alignment.
3. Enter the formulas as seen in rows 13 and 15, format as “**number**”.

**Charting the graph:**

Once you have entered the data in your spreadsheet, it is time to create your chart;

1. ****Highlight cells **A1 through C11** only.
2. Go to “**Insert**” and choose “**Column**” as the type and “**Clustered column**” as the sub-type.
3. With the chart selected, click on the Chart Title. For Chart Title, type in “**Wave Speed**.”
4. Insert the two axis titles into your graph. For the horizontal axis, type in “**Trials**.” For the vertical axis, type in “**Seconds**.”
5. Your chart should look like the example on the next page.

**Analysis:**

Look at the spreadsheet data and the chart. What can you say about the wave speeds in water compared to the wave speed in oil? Insert a text box and write a short paragraph underneath the chart explaining this.